

What is claimed is:

1. A method of aligning clocks over multiple networks having different clock domains, comprising:

transmitting timestamped packets over said networks between source and destination nodes, said timestamped packets conveying timing information based on a source clock at said source node ;

determining the expected delay over multiple nodes for a given traffic density;

identifying at least one intermediate node between said source and destination node where said determined expected delay is such as to permit clock restoration within predefined acceptable parameters;

restoring said source clock at said at least one intermediate restoration node to generate a restored intermediate clock signal;

producing from said restored intermediate clock signal new timestamped packets conveying timing information based on said restored intermediate clock signal; and

forwarding said new timestamped packets to said destination node.

2. A method as claimed in claim 1, wherein said source clock is restored at said restoration points by physical clock restoration using a phase locked loop.

3. A method as claimed in claim 1, wherein said source clock is restored at said restoration points by numerical techniques.

4. A method as claimed in claim 1, wherein said source clock is restored at said restoration points by a combination of a physical restoration and a numerical technique.

5. A method as claimed in claim 1, wherein each restoration has a HOLDOVER functionality as part of the restoration.